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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,414	09/10/2003	Kenneth Paul Blackmon	COS-868 DIV	4630
7590	03/10/2005		EXAMINER	
Fina Technology, Inc. PO Box 674412 Houston, TX 77267-4412			CHOI, LING SIU	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/659,414

Applicant(s)

BLACKMON ET AL.

Examiner

Ling-Siu Choi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/10/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. This Application is a division of US Application Serial Number 10/233,637 filed September 3, 2002, now US Patent Number 6,657,024. Claims 1-12 are now pending.

Election/Restriction

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-6, drawn to a catalyst system, classified in class 502, subclass 103.
 - II. Claims 7-12, drawn to a polypropylene, classified in class 526, subclass 351.
3. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions relate to a catalyst system and a polypropylene.
4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

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5. During a telephone conversation with Ms Tenley R. Kruger on February 18, 2005, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-6. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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8. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of U.S. Patent No. 5,891,817 in view of Shamshoum et al. (US 6,133,385).

	Claim 1 (present invention)	claim 7 (US 5,891,817)	claim 8 (US 5,891,817)
A	Ziegler-Natta catalyst	a solid catalyst [dialkoxymagnesium, titanium halide, and diester of aromatic dicarboxylic acid]	a solid catalyst [dialkoxymagnesium, titanium halide, and diester of aromatic dicarboxylic acid]
B	an organoaluminum		an organoaluminum
C	n-butylmethyldimethoxy silane (BMDS)	di-n-propyldimethoxysilane, di-n-butyldimethoxysilane, or BMDS	$R_1R_4Si(OR_3)(OR_2)$ R_1 and R_4 each is $-CH_2R'$ with R' being H or n-alkyl

For claim 1 (present invention) and claim 7 (US 5,891,817)

Shamshoum et al.'817 disclose a catalyst comprising (a) a solid catalyst component obtained by the contact of dialkoxymagnesium, a titanium halide, and a diester of an aromatic dicarboxylic acid and (b) an external electron donor selected from the group consisting of di-n-propyldimethoxysilane (DPDS), di-n-butyldimethoxysilane (DBDS), and **n-butylmethyl dimethoxy silane (BMDS)**"(claim 7). However, Shamshoum et al.'817 are silent on the use of an organoaluminum compound in the catalyst. Shamshoum et al.' 385 disclose that "[i]n such a total catalyst system, a co-catalyst activates the catalyst and provides the initiation of a polymer

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chain. The co-catalyst that works well with the new generation catalysts is an organoaluminum compound, most typically triethylaluminum(TEAL) or another trialkylaluminum" (col. 2, lines 30-35). In light of such advantage, it is obvious to incorporate the organoaluminum in the claim 7 of US 5,891,817. Accordingly, the present claim 1 is an obvious variation of claim 7 of US 5,891,817 .

For claim 1 (present invention) and claim 8 (US 5,891,817)

Claim 1 is not an obvious variation of claim 8 of US 5,891,817 because the scope of claim 1 is a subset of the scope of claim 8. And there is no reasonable motivation to specifically use n-butylmethyldimethoxy silane (BMDS) as an external electron donor in the catalyst.

Claim Objections

9. Claims 1-6 are objected to because of the following informalities: (a) claim 1, line 1, "copolymerization of olefins comprising" is suggested to be changed to – copolymerization of olefins, comprising--; (b) claim 2, line 3, "R" is suggested to be changed to --R⁺--; and (c) claim 5, line 4, "R" is suggested to be changed to --R⁺--.

Appropriate correction is required.

Claim Rejection - 35 USC § 102

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10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-6 are rejected 102(b) Shamshoum et al. (US 5,891,817).

A catalyst system for polymerization of olefins, comprising

A	a Ziegler-Natta catalyst
B	an organoaluminum compound cocatalyst
C	at least one external electron donor comprising n-butylmethyldimethoxysilane (BMDS)

(summary of claim 1)

Shamshoum et al. disclose a catalyst system comprising (A) a solid catalyst component obtained by the contact of dialkoxymagnesium, a titanium halide, and a diester of an aromatic dicarboxylic acid, (B) an organoaluminum, and (C) an external electron donor in the general formula of $R_1R_4Si(OR_3)(OR_2)$ with R_1 and R_4 being the same or different and being preferably selected from the group consisting of n-propyl, n-butyl, and methyl (col. 3, lines 6-7; claim 1), wherein the organoaluminum compound is triethylaluminum (TEAL) (col. 2, lines 8-16; claims 9-10) and the ratio of Al/Si is 50

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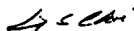
(Example 1, especially, lines 35-40). Shamshoum et al. further disclose that "preferred electron donors are di-n-propyldimethoxysilane (DPDS), di-n-butidimethoxysilane (DBDS), and **n-butylmethyldimethoxysilane (BMDS)**" (col. 3, lines 10-12; claim 7).

Shamshoum et al. furthermore disclose that the catalyst component comprises a compound which is "preferably of the general formula MR^+_x ", wherein M is a Group IVB, VB or VIB metal; R is a halogen or a hydrocarboxyl; and x is the valence of the metal (col. 4, lines 54-63). Thus, the present claims are anticipated by the disclosure of Shamshoum et al.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.



LING-SUI CHOI
PRIMARY EXAMINER

March 4, 2005